Ms. Ellen Garvey
Air Pollution Control Officer
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

Dear Ms. Garvey:

As we discussed in our conference call of June 30, Region 9 and the Bay Area Air Quality Management District (Bay Area) agreed on Bay Area issuance of the ten Major Facility Review Permits originally proposed on November 15, 1996, as revised by Bay Area in submittals dated April 30, 1997 and June 18, 1997. I am pleased that we were able to resolve the majority of our concerns, and that the Bay Area has since issued the permits, and I would like to thank you and your staff for the time and effort that the District put into developing these permits.

As I stated during our conference call, Region 9 expects to see continued improvement in Bay Area's approach to periodic monitoring requirements, building on what Bay Area has accomplished in the last several months. Specifically, we expect that Bay Area's approach will be to focus on developing periodic monitoring that assures compliance with all applicable requirements, including those requirements that apply to units that will be subject in the future to the Compliance Assurance Monitoring (CAM) rule, and to insignificant emission units. As Bay Area processes its remaining Major Facility Review Permit applications, additional issues concerning periodic monitoring may arise. The following discussion should clarify our expectations for development of periodic monitoring that assures compliance with applicable requirements of the Clean Air Act.

First, section 504 of the CAA is clear that each Title V permit must include "conditions as are necessary to assure compliance with applicable requirements of [the Act], including the requirements of the applicable implementation plan" and "inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." 42 U.S.C. §7661c(a),(c). No unit at a Title V source, including a unit subject to only generic applicable requirements, is exempt from permit content requirements, including the requirement that the permit contain monitoring, compliance certification, and reporting

requirements to assure compliance with permit terms and conditions. As stated in the preambles to the proposed and final part 70 regulations (see 56 FR 21733, 56 FR 21738, and 57 FR 32278), periodic monitoring applies to each applicable requirement lacking adequate monitoring, including each requirement in a SIP, NESHAP or NSPS (see 40 CFR 70.6(a)(3)(B)). As we stated in our May 30 response to Bay Area's April 30 submittal, the periodic monitoring requirement applies independently of the CAM rule, which has not yet been promulgated.

Where an existing applicable requirement does not require periodic testing, instrumental monitoring, or non-instrumental monitoring such as recordkeeping that assures compliance, a source owner or operator is responsible for proposing a periodic monitoring approach to the permitting authority for each applicable requirement. In most cases, a facility will already be conducting monitoring that may satisfy, or be a starting point for Title V periodic monitoring conditions. By focusing monitoring on detecting and correcting changes in normal operations before they become violations, rather than simply noting violations when they occur, periodic monitoring enhances the ability of the permit to assure compliance. Being familiar with the circumstances that cause deviations at an emissions unit, an owner or operator can apply the knowledge gained from periodic monitoring to take corrective action to minimize or eliminate the circumstances causing the deviations.

The permitting authority must use its expertise to review and assess the adequacy of the proposed approach. As required by part 70, the permit must contain "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit." Periodic monitoring must be "sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit..." Should the permitting authority find the source's proposed approach to be deficient, the permitting authority must either request that the owner or operator propose additional monitoring, or impose additional monitoring. The selection of monitoring should be based on a technical showing of whether the additional monitoring will assure compliance with the permit. The technical basis for monitoring decisions, including the decision to apply no additional monitoring, should be made available to the public by the permitting authority.

EPA's role is to ensure that the record is complete. In other words, we are to ensure that, for each applicable requirement, the proposed permit contains periodic monitoring or that the record contains the basis for a decision that no monitoring, or, in some cases, no additional monitoring is needed. We are also required to ensure that the Title V permitting programs provide permits that will assure compliance as required by the Act. We exercise program oversight through various processes including permit reviews, proposed permit objections, and program reviews.

The concept of assuring compliance is carried into "White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program" (WP2), which states that, "(t)he EPA interprets part 70 to allow permitting authorities considerable discretion as to the format and content of permits, provided that compliance with all applicable requirements, including those for

[insignificant emission units] IEU's is assured." This discretion provides flexibility to determine, for each unit and applicable requirement, the type of permit conditions that will satisfy this requirement.

The WP2 focuses permitting authorities on the opportunities for less burdensome monitoring by specifically relating a unit's likelihood of violating a limit and its monitoring requirements. One way the permittee and/or permitting authority may relate monitoring to the likelihood of violation is to make a technical showing that some surrogate for an emission limit, such as fuel or production restrictions, or good operations and maintenance, can reasonably assure compliance. In such cases, "periodic monitoring" could consist of making those restrictions or specific operating and maintenance practices enforceable in the permit, with appropriate recordkeeping requirements. For example, the permittee and/or permitting authority might show that compliance is assured if the associated control device is maintained at its required efficiency, and that this efficiency can in turn be assured by monitoring specific operating parameters and performing maintenance at specified frequencies. Examples of this approach are specific permit requirements for good operation and maintenance of controls such as baghouses and scrubbers. A set of example conditions for baghouses is enclosed. For scrubbers, this may consist of daily or continuous monitoring of scrubber liquid flow rate and pressure drop. Another enclosed example is a set of permit conditions based on those developed by the State of Washington for opacity monitoring requirements that apply to all units. The conditions combine monitoring with operating and maintenance practices.

Another means of developing streamlined monitoring is to provide a demonstration that emissions from "worst-case" operation of the unit will be far less than applicable emission limits. A good example of this kind of showing is Bay Area's demonstration that based on worst-case assumptions, VOC emissions from wastewater treatment plants will be far below the emission limits. The permitting authority should provide justifications based on a technical showing that compliance can be assured because the units will not violate the limits. Any assumptions involved in the technical demonstration that certain sources do not have the potential to violate their limits must be made enforceable in the permit, with related streamlined monitoring in the form of appropriate parametric monitoring and recordkeeping. For example, a boiler currently fired on natural gas, but which is capable of firing on oil, has the capacity and potential for opacity violations during oil firing, even if there have been no violations while firing natural gas in the past. Therefore, if compliance is based on the assumption that only pipeline-quality natural gas is burned, it is important that this assumption be made enforceable by a permit condition restricting fuel use to pipeline-quality natural gas. The permit should also require the permittee to keep records of the type of fuel combusted and to verify, via the annual compliance certification, that only pipeline-quality natural gas was burned that year. In another example, a permitting authority may show that because a unit burns only low sulfur fuel, the applicable SO_2 limit will not be violated. In this case, the permit would contain a limit on the fuel sulfur content, and a requirement to maintain fuel purchase records to show that only low sulfur fuel was burned.

The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and

compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emission units and applicable requirement situations. With respect to IEUs, WP2 states that, "IEU's typically are associated with inconsequential environmental impacts and present little potential for violations of generically applicable requirements, and so may be good candidates for a very streamlined approach to periodic monitoring." This monitoring could range from no additional monitoring, to a requirement to operate equipment in a manner consistent with specific good air pollution control practices, to recordkeeping of parametric monitoring data, or other streamlining monitoring as described above. WP2 indicates that some IEUs will have associated monitoring since WP2 provides the example of an inspection program to assure proper operation and maintenance. Even though WP2 affords permitting authorities considerable discretion as to the format and content of permits (including allowing no monitoring for some applicable requirements) that discretion is not unbounded. The permitting authority should, in each case, examine the environmental impacts and potential for violations and ensure that the permit will assure compliance. As previously mentioned, EPA, of course, through our review, objection, and reopening authorities, has an independent obligation to assure that permits comply with the Act.

When considering environmental impacts and significance, a unit's level of emissions is typically a factor. However, one should not assume that a small unit with low emissions would not require additional monitoring to assure compliance. In some cases, a small unit may have the same probability of violating a standard as a large one, depending on the type of applicable requirement. For example, low particulate matter emissions may not be indicative of a unit's potential to violate opacity standards.

Since it is generally the case that lists of IEUs were not developed or approved with periodic monitoring in mind, it may be inappropriate to conclude, without some additional analysis, that any IEU does not require additional monitoring to assure compliance. Also, in circumstances where the aggregated effect of IEUs at a particular site may cause consequential environmental impacts or may have increased potential for violations, it may be appropriate for sources to propose and the permitting authorities to consider using monitoring, even though on an individual basis the IEUs may not require monitoring. The aggregate effect of a number of IEUs could be significant in terms of short-term, worst-case emission rate, even if it might not be significant in terms of annual average emission rate. Further, environmental significance usually involves other factors besides emission rates, such as toxicity of the pollutant, dispersion characteristics, and attainment area status.

In determining a source's potential to violate applicable requirements, the absence of an enforcement history, by itself, does not justify an exemption from monitoring requirements. A lack of history of violations may only indicate a lack of compliance information. Also, the fact that a source has historically been in compliance does not assure that it will continue to be in compliance. The permitting authority should also consider that, as a unit ages, it is more likely to have compliance problems. If the unit's good compliance history is the result of clean fuel use (or a baghouse or other control device), then some additional monitoring may be required to assure

compliance, such as recordkeeping of fuel usage or pressure drop.

We have provided this statement of the Region's expectations on periodic monitoring provisions in permits in order to support your permitting efforts and to continue our cooperative working relationship with the Bay Area. We have consulted extensively with other Regions and Headquarters on many aspects of periodic monitoring and took those views into account in developing this letter. Other States that are further along in the Title V permitting process have also had similar discussions with their Regional offices, and those States are issuing permits based on the concepts contained in this letter. While there is a distinct case-by-case nature to the monitoring conditions developed for individual sources, Region 9 is committed to assuring compliance with the Clean Air Act. We may object to proposed permits or reopen issued permits that do not contain adequate monitoring or are not supported by a demonstration that no additional monitoring is necessary. Developments in periodic monitoring will continue, and the increasing experience of EPA and permitting authorities will help to improve the implementation of this important requirement. As we find useful examples, we will provide this information to Bay Area and other permitting authorities. If you have questions, please contact Martha Larson at (415) 744-1170.

Sincerely,

David P. Howekamp
Director
Air Division

Enclosures

cc: William deBoisblanc, BAAQMD
Janet Stromberg, BAAQMD
Ray Menebroker, CARB

Enclosure 1
Example
Good O&M Conditions for Baghouse
to Assure Compliance with Particulate Matter Limit

A. S98/PO3/CO3: Shotblast, Fabric Filter Control. Installed 1979

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING
1. Particulate Matter Emissions	(1) The emissions may not exceed 6.12 lb/hr. [§ NR 415.05(1)(o) and (2), Wis. Adm. Code]	(1) The baghouse must be controlling emissions and operating properly at all times shotblasting is being performed. [§ 144.394(3), Wis. Stat.] (2) The pressure drop across the baghouse shall be maintained between 1 and 10 inches of water. [§ NR 439.055(1)(a), Wis. Adm. Code] (3) The facility shall perform a weekly inspection of the baghouse to ensure there are no broken/torn bags which would allow excess emissions. [§ NR 407.09(1)(c)1.b., Wis. Adm. Code]	(1) Whenever compliance testing is required, USEPA Method 5, including the condensible backhalf, shall be used. When approved in writing an equivalent test method may be substituted for the required test method. [§ NR 439.06(1), Wis. Adm. Code] (2) The facility shall install, operate, calibrate and maintain a pressure drop monitor at the baghouse. [§ NR 439.055(1), Wis. Adm. Code] (3) The pressure drop across the baghouse shall be monitored continuously. [§ NR 439.055(1)(a), Wis. Adm. Code] (4) The facility shall maintain the following records: (a) A log of the name or initials of the operator performing each weekly baghouse inspection and the time each inspection took place. (b) A description of any maintenance or repairs of the baghouse that resulted from the inspection. (c) The daily pressure drop readings. [§ NR 439.04(1)(d), Wis. Adm. Code]

Enclosure 2
Opacity Monitoring Example

For compliance with the monitoring requirement for the general opacity standard, where monitoring is not addressed elsewhere in the permit for an individual unit, the permittee shall conduct at least once each [e.g. day, week, month] visual opacity inspections of each emission point at the facility during daylight hours. Visual inspections shall consist of a visual survey of all stacks and emission points to identify those which exhibit opacity greater than zero percent. Stacks and emissions points shall be visually evaluated when associated emissions units are operational. The formal assessment does not eliminate the permittee's on-going responsibility for the proper operation of equipment and control devices to meet the applicable opacity requirement. Whenever visible emissions other than uncombined water are observed during the inspection, indicated by a compliant, or are otherwise observed, the permittee shall do either of the following:

1) Verify and certify that the emission unit causing the emissions, or the emissions control device that is associated with the emission unit, is performing its normal, designed function and is being operated according to standard procedures, and per the conditions under which compliance has been met in the past. If the equipment or control device is not performing according to design and procedures, the permittee shall take corrective action to eliminate visible emissions within [24 hours]. Taking corrective action does not negate any reporting requirements for deviations or other credible evidence indicating a deviation; or

2) Perform a check via a certified opacity reader, in accordance with 40 CFR 60, Appendix A, Method 9. Such a check shall be conducted, [within 3 working days], to verify compliance with the [20 percent] opacity standard. If opacity is [20 percent] or greater, appropriate and timely action shall be taken, but no later than [within 3 working days] to identify and correct the problem causing the opacity. Taking corrective action does not negate any reporting requirements for such deviations.

With respect to the above requirements, the permittee shall maintain the following records:

1. Date and time of inspection
2. Stack or emission point identification
3. Operational status/conditions of the associated emission unit
4. Observed results and conclusions
5. Description of corrective actions taken to resolve any observed opacity
6. Date and time opacity problem was resolved
7. Method 9 results if testing is conducted
8. Name of person(s) performing the inspection, measurement, or monitoring